Petroleum Fiscal Design CSHB 111

Castle Gap Advisors, LLC.
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Senate Resources/Senate Finance Committees

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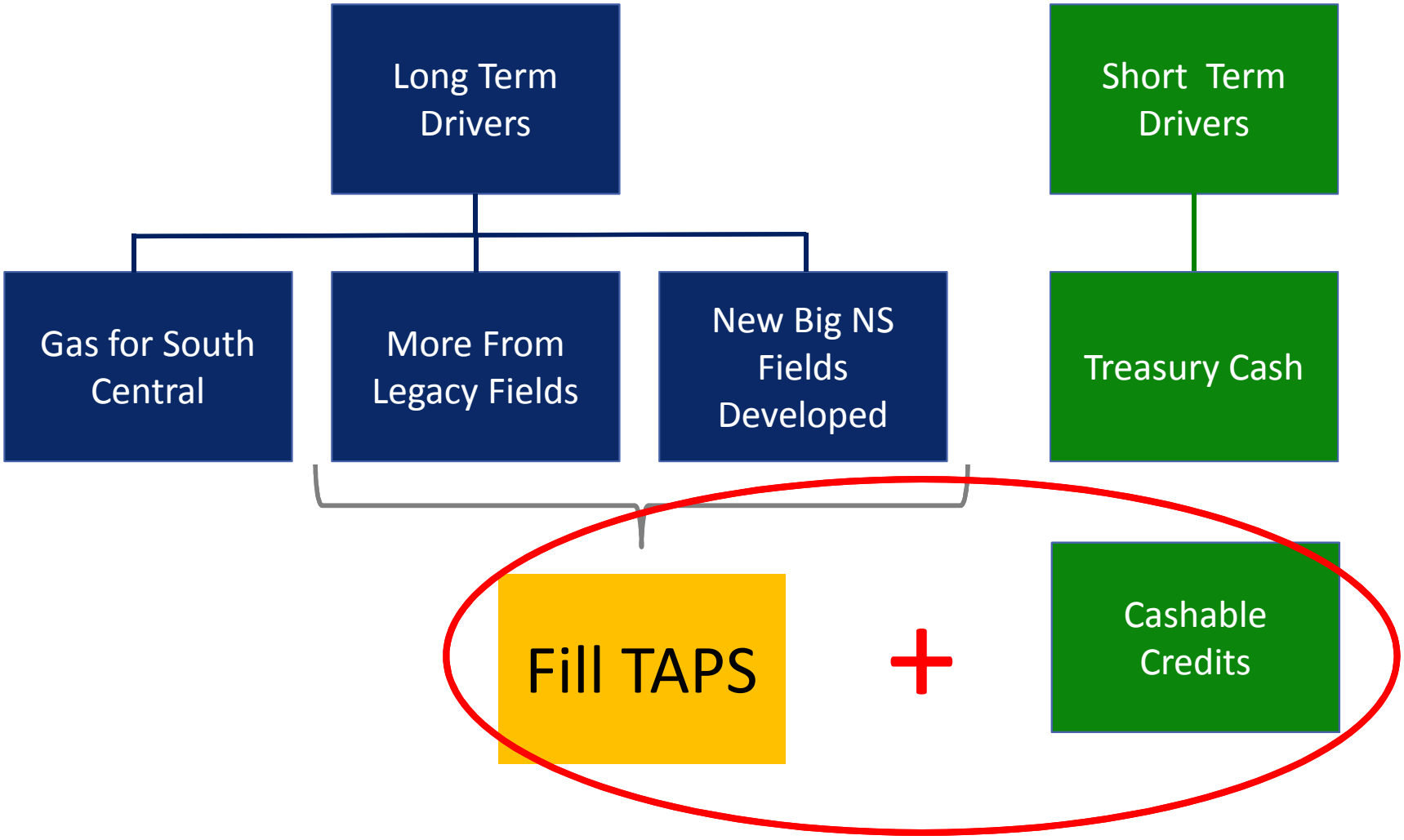
RECAP FROM PRIOR TESTIMONY

Alaska's Priorities – The Current Challenge



Observations From Prior Testimony

- We see a common understanding of the overarching strategic drivers
  - More Oil to fill TAPS
  - State can't afford to pay for cashable credits
  - Some go further to see the need for increased state revenues today

- Cashable Credits
  - Our experience in other regimes is that the producers have mechanisms that allow full recovery of their costs.
  - Industry in their testimony all agree that they need the right to fully recover their costs
  - All mentioned that the current system, which includes per barrel credits and a gross minimum tax results in Carry Forward NOLs not producing the same tax saving benefit as the cashable credits – i.e. The "Lost NOLs"

OBSERVATIONS AND SUGGESTIONS

Overall

- Alaska has an overall complex system for administering energy taxation
  - This has likely led to the frequency of change
  - Functional interdependencies make even a small fix difficult at best

- Too many items tied to price versus profitability or unit profitability
  - The ever changing world of energy and the resultant price and cost structures will ensure the original intent can't be maintained for very long
  - Need to try and make things as self-correcting as possible

- Over the last decade the $100s of Billions spent in countries and states with higher non-producer take than Alaska should cause a greater focus on aspects other than the rate to make Alaska as competitive as possible for investment capital

- Coming up with a simple system to generate the expected state revenues is not that difficult, but dealing with all the nuances will take time to make sure all constituencies are heard and all issues addressed

Overall

- As a legislature, if you want to be able to make changes that are most responsive to achieving goals and to be durable over time you need real and timely data

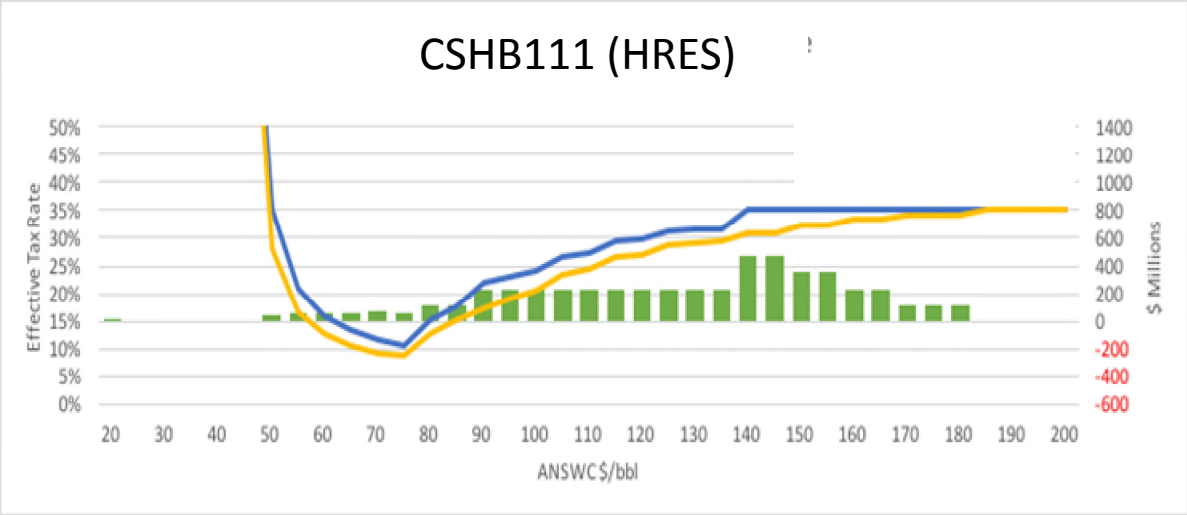
- The “Flaw of Averages” would suggest that working with estimates or averages will likely continue to result in a less than effective structure for al parties

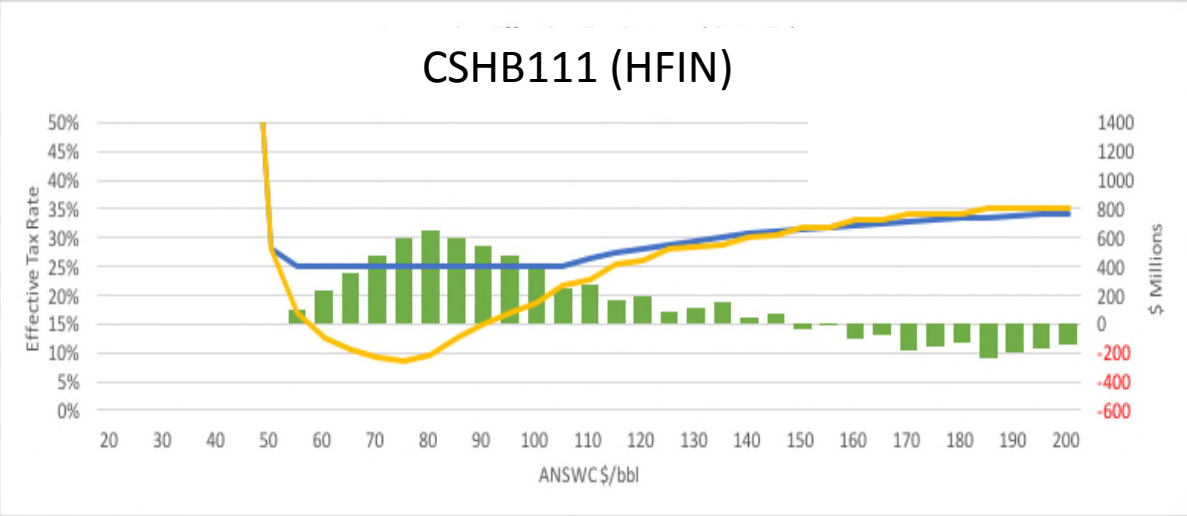
- Complexity in Alaska is further exasperated by the common ownerships of wells, fields, plants, pipes, ships, etc.. Given some of those are regulated entities, and subject of numerous past litigations, it will be difficult for parts of industry to come forward

- Need to find a mechanism to get good data and information

HB111 Review/Comments

- HB111 perceptions, understandings, and dialogue have all changed immensely since we began advising the legislature.





Ring Fencing

- State Concern: Paying (through tax savings or credits) without actual new hydrocarbons flowing to market

- Operator concern: The need to separate costs (1) between various projects using common facilities and (2) possibly between oil and gas

- Suggested Solution:
  - For an existing unit or field on production business as usual with any NOL created being used to offset future segment taxable income
  - For a new field or unit, direct costs associated with a potential new development will be calculated and held until commercial production is established. Once that occurs then all NOLs for that new entity will be available to be used in the taxpayer's segment return

Transparency

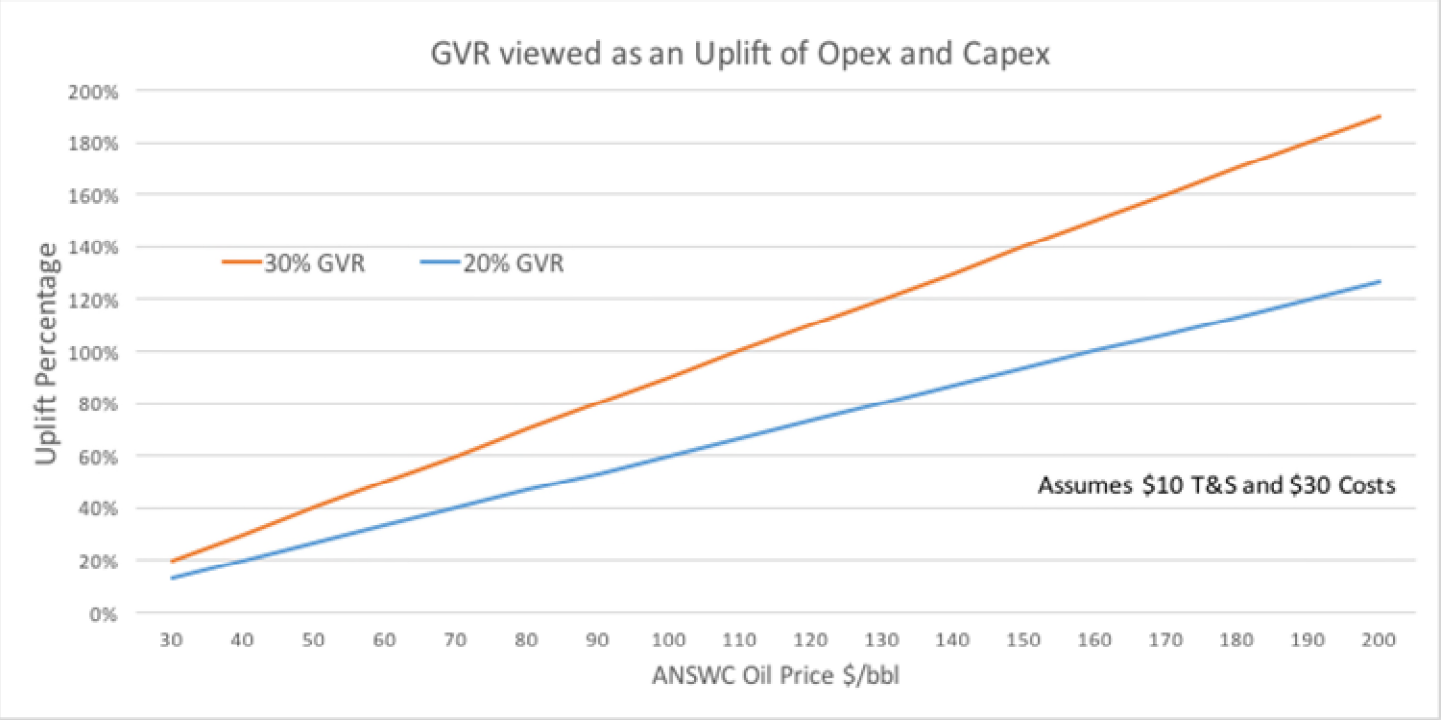
- The Oil and Gas Industry, and the royalty and taxes they pay are the economic engine of Alaska. Issues related to oil and gas should be top priority for the legislature

- Key data and information not readily supplied to each legislator

- Suggested Actions:
  - Both a physical and online 'book' of Alaska oil and gas statistics should be published and reviewed by DNR and AOGCC no later than the first week of the legislative session
  - Book to contain historical and projected curves or charts of production, spending, projects, jobs, wells, seismic, license rounds, etc.. all broken down to the lowest level of granularity possible
  - Pre session workshop to go over the current state of the global energy picture with multiple views on supply, demand, pricing, emerging technology, industry disrupters, the LNG market, etc., and the impact this all might have on activity in Alaska's energy sector

Gross Value Reduction (GVR)

- The GVR can be viewed as an uplift to current costs as it serves to reduce the Production Tax Value just as current costs do



- This is a ”Progressive” tax reduction tool that grows with price
- Do not see why the extra 10% is need to bring a project on stream. The availability of the 20% GVR with Royalty relief should be sufficient

Tax Rate and Per Barrel Credits

- To create a durable structure, a simplified system needs to be put in place when time allows

- As previously recommended, we would go with a stepped or bracketed net system that would have the various steps based on unit profitability
  - Low initial rate to mimic low taxes for Cook Inlet and other projects like heavy oil
  - Can progressively go higher as unit profitability grows
  - Self corrects for changing price and cost environments

Put the Barrel Credits in Perspective

- In a world of 500,000 bopd, $10 T&S, $30 Costs
  - $55, $65, $75 per barrel market price
  - All values rounded and in $Billion

	55	65	75
Market Value	10.0	11.9	13.7
Tranp & Shpg	1.8	1.8	1.8
Royalty	1.0	1.3	1.5
Costs	5.5	5.5	5.5
Taxable Value	1.7	3.3	4.9
Tax @ 35%	0.6	1.2	1.7
Per Barrel Credits	1.4	1.4	1.4
Gross Min Tax	0.3	0.4	0.5

- Alaska is in a gross minimum tax world until somewhere around $75/bbl, and even this may move higher as costs rise with the rise in the price of oil

Review: Timing of Cost Recovery is Critical

- Presented on Saturday 4 different recovery scenarios that yielded significantly different economic results
  - Accelerated 20% IRR $27 NPV(10)
  - Depreciated 14% $14
  - Cashable 27% $46
  - 50% reduction 6% -$12

- In this simple example there is considerable difference in economics between the Accelerated and the Cashable versions

- Our modeling for a new North Slope field shows a gap of 3-4% IRR difference between Cashable credits (assuming being paid when earned) versus any form of CF NOL recovery

Created a Full Lifecycle Model

- Model ran on a possible North Slope new field
  - $10Bn total Capex, roughly $6Bn before first production
  - $9Bn in total Opex
  - 40 year project life
  - 1 Bn barrels produced
  - Average 12.5% royalty

- Run with 35% tax and credits as well as 25% tax and no credits

Cashable Credits

- New and existing producers were encouraged by the possibility of receiving early cash return for their investments toward bringing new hydrocarbons into production.

- Current practice is to pay a maximum of $35 million per taxpayer per year

- For a new large North Slope field that has a maximum CF NOL of $5bn
  - If converted to credits @35% would take 50 years to get paid back
  - If converted to credits @25% would take 35 years to get paid back
  - Both options would suffer from significant lost time value of money

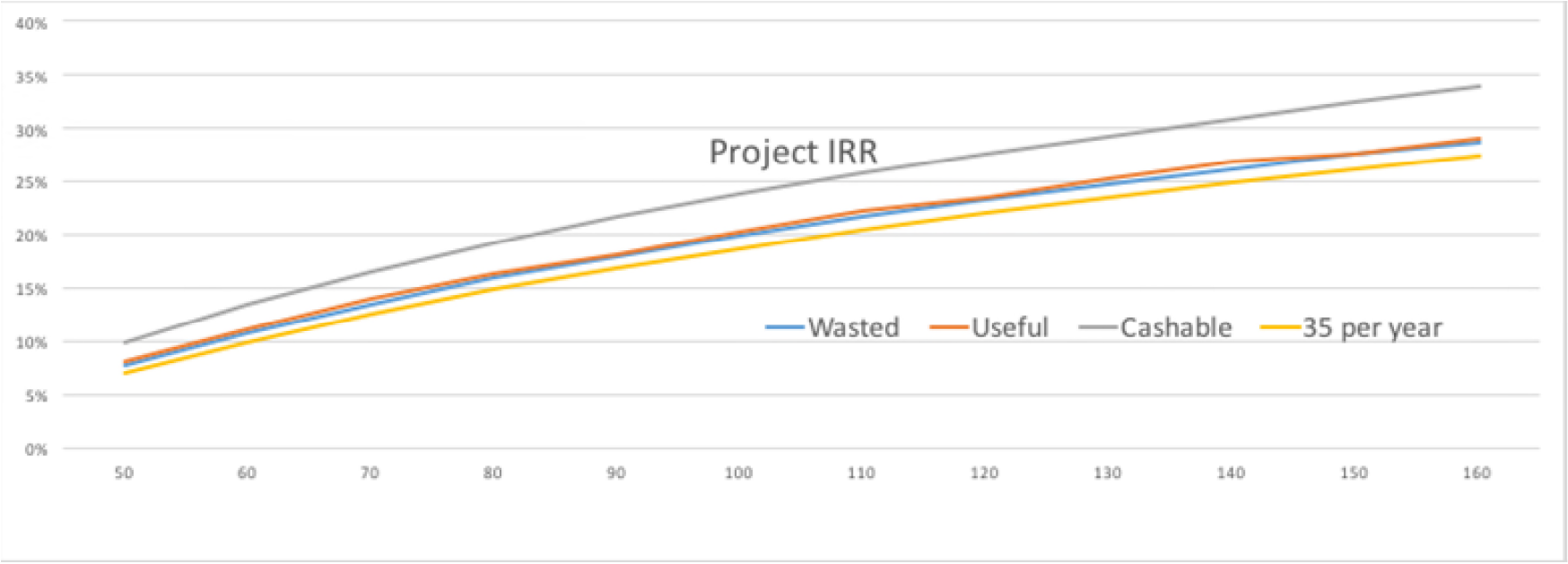
Bridging the Gap – Project IRR

- Type project run to compare immediately cashable credits (Cashable) against current structure with CF NOL (Wasted), current structure with NOLs 100% effective (Useful) and cashable credits recovered at a maximum of $35 million per year (35 per year)

- Even with considerable uplift, the rate of return gap does not close much at all; you can however, use uplift to equate cash flows.

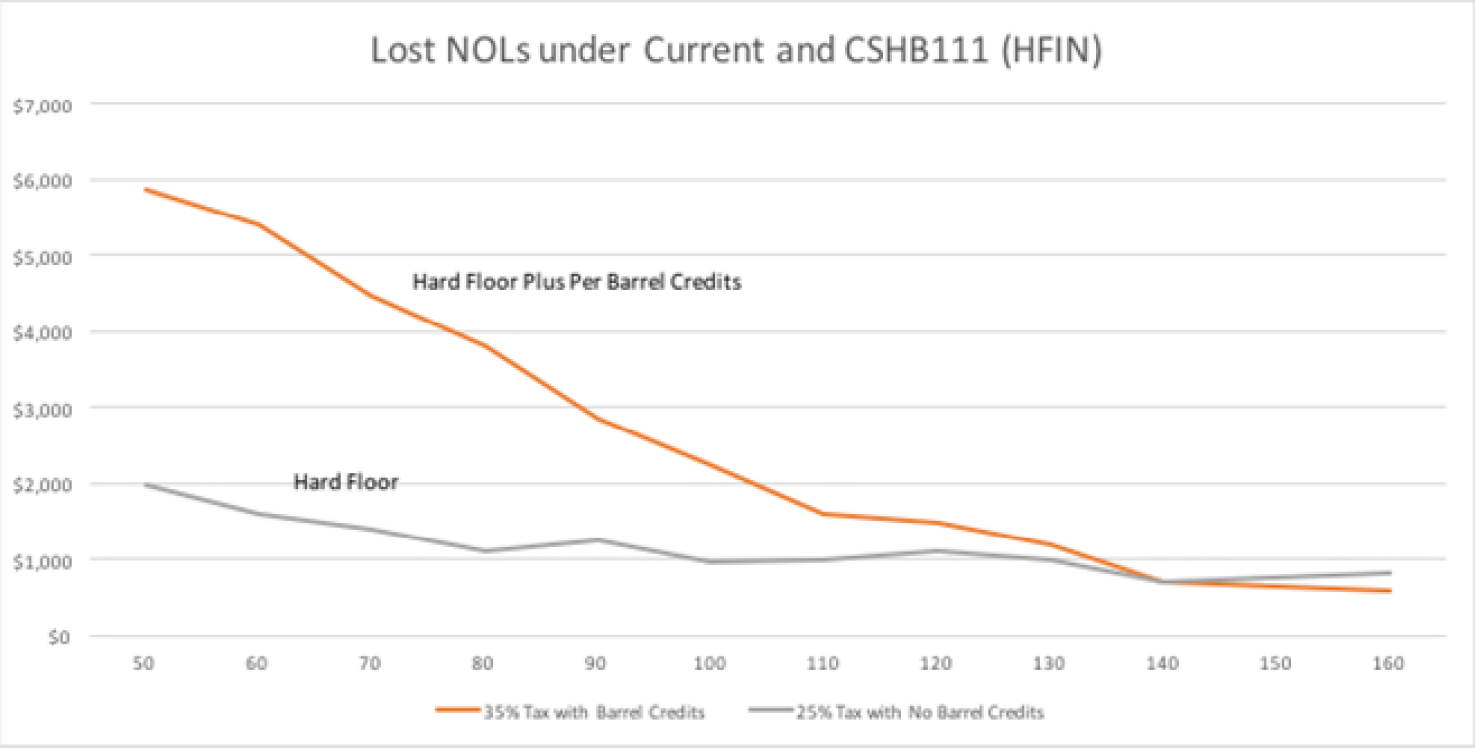
Project Rerun at 25% Tax and No Credits

- Note that the curves for NOLs and Optimized NOLs are almost identical
- The only difference is the impact of the gross minimum tax in about 4 years.
- The gap between cash now and deduction later is still significant.



“Lost NOLs”

- The large North Slope type field was run, across a range of flat nominal pricing, under the current structure (assuming CF of NOLs) and under the structure posed by CSHB111 (25% tax rate no credits)
- The removal of the per barrel credits greatly reduces the amount of “Lost NOLs”



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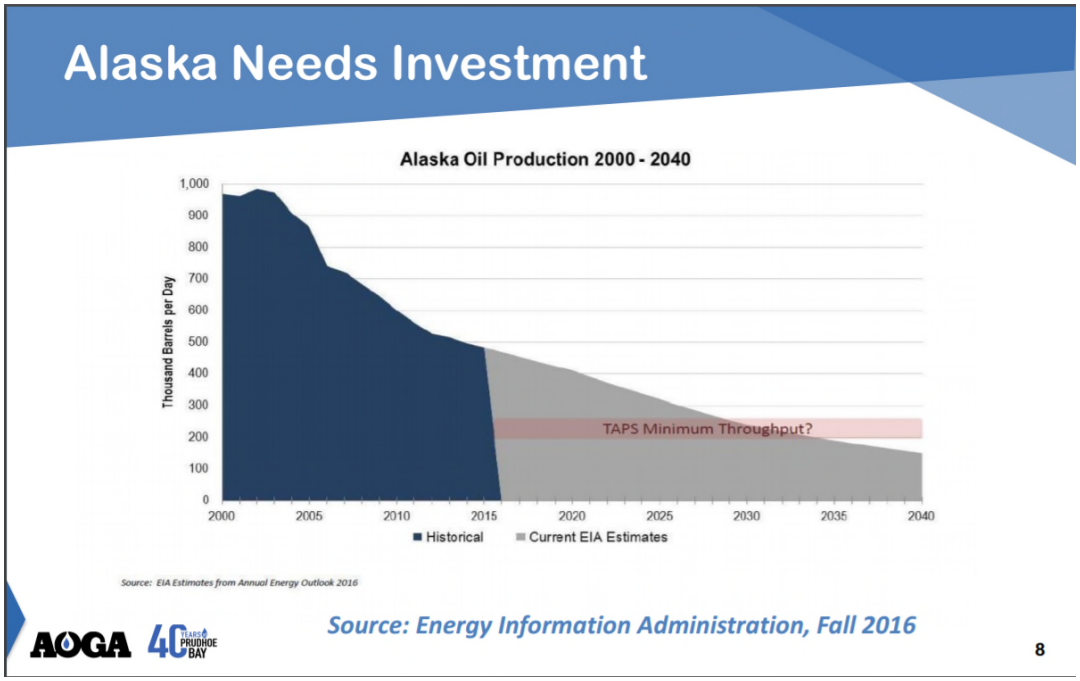
Optimizing Model Results



- Indicative profiles of timing of investment and production are necessary to understand the impact of your fiscal system (and proposed changes) on state revenue and producer economics

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